

Patent Claims:

1. A method for monitoring a measurement device, in particular a flow measurement device,
5 **characterized**
 in that a characteristic variable is calculated from a time series $s(t)$ of the measurement signal of a measurement device and is compared with previously recorded reference values, with this being used as the basis to automatically generate a message as to whether the measurement device has been installed correctly or incorrectly.

10 2. The method as claimed in claim 1,
15 **characterized**
 in that the reference values relating to the respective measurement device are recorded in advance and are associated appropriately on a device-related basis.

20 3. The method as claimed in claim 2,
25 **characterized**
 in that the installation standard determined by comparison is produced automatically as a message, and is indicated on the measurement device.

30 4. The method as claimed in claim 2,
35 **characterized**
 in that the installation standard determined by comparison is produced automatically as a message and is transmitted by means of information transmission to a higher-level system where it is indicated.

35 5. The method as claimed in one of the preceding claims,
 characterized

in that one or more measurement devices which operates or operate in this way is or are connected for information purposes via a bus system to the higher-level system.

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6. The method as claimed in one of the preceding claims,

characterized

in that the message is generated automatically as
10 a full text message.

7. The method as claimed in claim 6,

characterized

in that the message is used to automatically
15 generate a corresponding additional full text
message with fault rectification instructions.

8. A measurement device, in particular a flow
measurement device,

characterized

in that a characteristic variable can be
calculated in a microprocessor from a time series
s(t) of the measurement signal of the measurement
device (1) in a calculation unit (2), and can be
25 compared with previously recorded reference
values, which are stored in a data memory (4), in
which case a message can be automatically
generated on this basis, as to whether the
measurement device has been installed correctly or
30 incorrectly.

9. The measurement device as claimed in claim 8,

characterized

in that the measurement device (1) has a
35 comparator (3) which compares the time series s(t)
of the measurement signal with the data from the
data memory (4).

10. The measurement device as claimed in claim 8 and
9,
characterized
in that the measurement device contains a display
5 (5) on which said messages can be indicated.

11. The measurement device as claimed in one of claims
8 to 10,
characterized
10 in that the display (5) is a display which is
arranged remotely from the actual measurement
device.

12. The measurement devices as claimed in one of the
15 preceding claims 8 to 11,
characterized
in that the individual elements (1, 2, 3, 4, 5) of
the measurement device are accommodated in a
compact form in one appliance.
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13. The measurement device as claimed in one of the
preceding claims 8 to 12,
characterized
in that the individual elements (1, 2, 3, 4, 5) of
25 the measurement device are at least partially
physically separated, but are connected to one
another via an information system.

14. A software program product, in which the
30 functional features as claimed in one or more of
claims 1 to 7 are provided by a software program,
and the software program can be implemented in the
measurement device.